

What is claimed is:

1. A method for stabilizing an optical output of a semiconductor laser, comprising the steps of:

(a) heating the semiconductor laser with a heater
5 when the semiconductor laser is not in operation; and

(b) performing one of a first operation of stopping heating of the semiconductor laser and a second operation of decreasing an amount of heat supplied to the semiconductor laser, almost simultaneously with startup of
10 the semiconductor laser.

2. A method according to claim 1, wherein said heater heats a vicinity of the semiconductor laser at a heating rate which approximately corresponds to a heat-generation rate at which the semiconductor laser generates heat when the semiconductor laser is in operation, and said first
15 operation is performed almost simultaneously with startup of the semiconductor laser.

3. A method according to claim 1, wherein a current lower than an oscillation threshold level of the semiconductor laser is supplied to the semiconductor laser when the semiconductor laser is not in operation.
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4. A method according to claim 2, wherein a current lower than an oscillation threshold level of the semiconductor laser is supplied to the semiconductor laser when the semiconductor laser is not in operation.
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5. A method according to claim 1, wherein said

semiconductor laser is realized by a GaN-based compound semiconductor laser, a multicavity semiconductor laser having a plurality of light-emission points, or a plurality of semiconductor lasers mounted on a common block.

5 6. A method according to claim 2, wherein said semiconductor laser is realized by a GaN-based compound semiconductor laser, a multicavity semiconductor laser having a plurality of light-emission points, or a plurality of semiconductor lasers mounted on a common block.

10 7. A method according to claim 3, wherein said semiconductor laser is realized by a GaN-based compound semiconductor laser, a multicavity semiconductor laser having a plurality of light-emission points, or a plurality of semiconductor lasers mounted on a common block.

15 8. A method according to claim 4, wherein said semiconductor laser is realized by a GaN-based compound semiconductor laser, a multicavity semiconductor laser having a plurality of light-emission points, or a plurality of semiconductor lasers mounted on a common block.

20 9. A method according to claim 1, wherein said heater is realized by a semiconductor laser chip.

 10. A method according to claim 2, wherein said heater is realized by a semiconductor laser chip.

 11. A method according to claim 3, wherein said heater
25 is realized by a semiconductor laser chip.

 12. A method according to claim 4, wherein said heater

is realized by a semiconductor laser chip.

13. A method according to claim 1, wherein said heater comprises a heating wire or a heating resistor.

14. A method according to claim 2, wherein said heater
5 comprises a heating wire or a heating resistor.

15. A method according to claim 3, wherein said heater comprises a heating wire or a heating resistor.

16. A method according to claim 4, wherein said heater comprises a heating wire or a heating resistor.